

EKT团队正在准备  
实施吹缆操作  
The EKT team prepares  
for blowing



案例精选  
REFERENCE PROJECT

# FTTH微电缆打造长链路 FTTH MICRO CABLE FOR LONG LINKS

图尔高州的能源供应公司EKT受EW Dussnang公司委托，在瑞士公社内搭建光纤到户 (FTTH) 网络。德特威勒公司为此研发了一款符合要求的高光纤密度的小直径吹缆产品。

Thurgäu's cantonal energy supply company is being commissioned by EW Dussnang to create an FTTH network in the Swiss commune. Datwyler has developed a thin blown cable of high fibre density to fit the bill.



必要支持：带有挂缆小车和空气压缩机的车辆

Essential support: vehicles with cable trolleys and compressor

瑞士Dussnang自治市中的许多城镇和村庄分布广且分散，为了把它们连接到图尔高州能源公司EKT AG的光纤网络，计划在Elektrizitätswerk Dussnang FTTH项目的管道系统中采用一种创新的光纤电缆。而在此之前电力公司已将德特威勒的“FO Outdoor wbKT S-Micro”产品（216根光纤，外径8.4毫米）吹入了该服务区域的微型管道中。德特威勒应委托开发出一种可为此项目扩建提供充足光纤的新型电缆。

Some of the towns and villages in the Swiss commune of Dussnang are widely scattered, so to connect them to the fibre optic network EKT AG, Thurgau's cantonal energy company, planned to use an innovative fibre optic cable for the duct system in the Elektrizitätswerk Dussnang FTTH project. Up till then the electricity companies had Datwyler's "FO Outdoor wbKT S-Micro" – 216 fibres and an external diameter of 8.4 millimetres – blown into the

**“该解决方案意味着我们能够接入更多的建筑物”**

Gerhard Glükler, EKT

**“THIS SOLUTION MEANT THAT WE WERE ABLE TO ACCESS MORE BUILDINGS”**

Gerhard Glükler, EKT

microducts in their supply area. Datwyler was commissioned to develop a new cable which would provide sufficient fibres for those using the expansion project.

德特威勒和EKT TAG共同实施FTTH解决方案。该开发项目的独特之处在于：增加光纤数量，从而让每个用户单元在良好的配线安装中可以同时连接至两根光纤。此外，电缆必须符合现有的管道系统，并且吹出距离能够达到1500米，从而为最偏远的住宅提供服务。

Datwyler and EKT AG implemented the FTTH solution together. The development project is special in that more fibres allow each utilisation unit to be connected to two fibres during fine distribution. The cable also had to fit into the existing duct system and be capable of being blown over a distance of 1,500 metres so as to reach even the remotest households.

#### 10.4 毫米，288 根光纤

德特威勒在春季推出了“FO Outdoor wbKT S-Micro 12 x 24”产品。这款产品可提供288芯E9/125 G.652.D光纤而外部直径仅为10.4毫米，正好适合EKT的12毫米（内径）微型吹管。

EKT已经在2015年夏天与其他合作伙伴建造了管道系统。如果成本合适，管道模块会沿着道路下敷设。

#### 10.4 millimetres, 288 fibres

Datwyler introduced the "FO Outdoor wbKT S-Micro 12 x 24" in the spring. This product provides 288 type E9/125 G.652.D fibres. With an external diameter of only 10.4 millimetres it fitted into EKT's 12 mm (internal diameter) microducts.

部分区域如果成本过高，土木工程公司则会利用两台拖拉机和一副犁犁把微管直接埋入土壤中。

EKT had constructed the duct system with other partners in the summer of 2015. If cost effective, the duct blocks were routed under the road. If this appeared too expensive, a civil engineering company buried the microducts in the soil using two tractors and a plough.

#### 吹出1500米

2016年5月，新电缆被吹入微管中。链路的第一段大幅下降，通往终端的管道存在无数弯曲，这些因素均应考虑在内。尽管如此，光纤电缆成功吹入了1500米的管段，没有任何断点。

#### Blown for 1,500 metres

In May 2016 the new cable was blown into the microducts. The first section of the link dropped sharply and towards the end numerous curves had to be negotiated. Despite this, the fibre optic cable was inserted into the 1,500 metre section without any breakpoints.

EKT电信服务管理主管Gerhard Glükler解释说，我们把合同给了德特威勒，因为两家公司在光缆领域始终保持着长期合作关系。事实再次证明此举是正确的。专家表示，“该解决方案意味着我们能够应用于更多建筑物，同时，得益于小直径的新电缆，无需再安装额外的管道。”

Gerhard Glükler, Head of Telecom Service Management at EKT, explained that the contract was awarded to Datwyler because the two companies had a long history of collaboration in the fibre optic cable sector. This



有效吹入的光缆及备用部分的长度

The length of cable plus reserve effectively blown in

proved to be the right choice once again: "This solution meant that we were able to access more buildings and at the same time, thanks to the small diameter of the new cable, do so without installing additional ducts," said the expert.

每个终端客户都可以拥有两根入户光纤，有助于节省成本。最后，EKT希望把该地区内所有的建筑都接入信息高速公路。Each end customer can have two fibres routed into the home against a contribution towards the cost. Eventually EKT wants to connect all the buildings in the region to the information highway.

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吹缆过程中的轴管保护

Securing the shaft during blowing



EKT AG 吹缆团队

The EKT AG blowing team